

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
 690 Walnut Ave. St. 150
 Vallejo, CA 94592-1133
 (707) 649-5453
 (707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028180**Date Inspected:** 13-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Ultrasonic Testing of ESW**ESW W, Face A:**

This QA performed Ultrasonic Testing (UT) on approximately 1600mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as "ESW W" face A. Location (Y=5150~6750) of this weld was inspected using this testing method.

This weld was previously accepted by QC Ultrasonic technicians in accordance with supplemental procedure SE-UT-D1.5-CT-108-ESW-R5.

This QA observed no recordable longitudinal indications at the time of testing.

This QA observed no recordable transverse indications at the time of testing.

This QA generated a TL-6027 UT report on this date.

This QA performed UT of weld designated as ESW W in accordance with the approved supplemental procedure. This testing was performed in tandem with QC technician Scott Kortum. Tandem report for work performed on this date will be completed by QC technician and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Due to QA/QC disagreement on indication interpretation, tandem report may not reflect all indications discovered by QA at time of testing. Please see TL-6027 for complete listing

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of QA recorded indications.

ESW N, Face A:

This QA performed Ultrasonic Testing (UT) on approximately 1600mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as "ESW N" face A. Location (Y=5150~6750) of this weld was inspected using this testing method.

This weld was previously accepted by QC Ultrasonic technicians in accordance with supplemental procedure SE-UT-D1.5-CT-108-ESW-R5.

This QA observed three (3) recordable longitudinal indications at the time of testing.

This QA observed four (4) recordable transverse indications at the time of testing.

This QA generated a TL-6027 UT report on this date.

The following indications were observed as having a transverse orientation. Due to joint configuration and weld cap shape these indications could not be evaluated for length or "X" location.

Indication #1: Y= 5650mm

Sizing – A=68db, B= 53db, C= 6db, D= 9db

Sound Path= 97mm, Depth= 31mm

Indication #2: Y= 5680mm

Sizing – A=76db, B= 53db, C= 7db, D= 16db

Sound Path= 108mm, Depth= 35mm

Indication #3: Y= 6540mm

Sizing – A=79db, B= 53db, C= 7db, D= 19db

Sound Path= 108mm, Depth= 35mm

Indication #4: Y= 6580mm

Sizing – A=78db, B= 53db, C= 6db, D= 19db

Sound Path= 99mm, Depth= 32mm

The following indications were observed as having a longitudinal orientation.

Indication #1: Y= 5560mm

Sizing – A=63db, B= 53db, C= 8db, D= 2db

X= 0mm, L= 20mm

Sound Path= 122mm, Depth= 39mm

Indication #2: Y= 5560mm

Sizing – A=68db, B= 53db, C= 6db, D= 9db

X= -17mm, L= 20mm

Sound Path= 103mm, Depth= 33mm

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Indication #3: Y= 5835mm
Sizing – A=68db, B= 53db, C= 5db, D= 10db
X= -20mm, L= 40mm
Sound Path= 88mm, Depth= 28mm

This QA performed UT of weld designated as ESW N in accordance with the approved supplemental procedure. This testing was performed in tandem with QC technician Scott Kortum. Tandem report for work performed on this date will be completed by QC technician and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Due to QA/QC disagreement on indication interpretation, tandem report may not reflect all indications discovered by QA at time of testing. Please see TL-6027 for complete listing of QA recorded indications.

Ultrasonic Testing

This QA performed Ultrasonic Testing (UT) of one (1) electroslag weld repair designated as “ESW B”, face B at locations (Y= 1020mm, L= 190mm, W= 40mm)

These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3.

This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

This QA performed Ultrasonic Testing (UT) of one (1) electroslag weld repair designated as “ESW B”, face B at locations (Y= 9585mm, L= 150mm, W= 38mm)

These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3.

This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Magnetic Particle Testing

This QA Inspector performed Magnetic Particle Testing (MT) of completed weld repair on tower ESW “B”, face B. This QA observed no rejectable indications at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

Measurements for excavation are:
Weld “B” – Y= 9585mm, L= 150mm, W= 38mm.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Conversations were relevant to testing performed.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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| Inspected By: | Clifford, William | Quality Assurance Inspector |
| Reviewed By: | Levell, Bill | QA Reviewer |
